

Amendments to the Specification

Please replace Abstract of the disclosure with the following paragraph:

The invention relates to an MRI system (1) for nuclear magnetic resonance imaging which comprises a plurality of transmit coils (11, 12). Each coil receives a coil drive signal (S_{D1} , S_{D2}). The respective coil drive signals have the same shape, but may have a different amplitude and phase, controlled by a controller (103) on the basis of characteristic information in a memory (104) as well as user input information. The controller is designed to set the respective amplitudes and phases in such a way that the resultant overall B1 field is as homogeneous as possible in a volume of interest.